

PHILMONT *Mobile* RADIO CLUB INC.

The **B L U R B**

AREA
MEMBER



April 8, 1967



The BLURB is published monthly by and for the members of the Phil-Mont Mobile Radio Club. Our purpose is to further the interest of amateur radio in general and mobile radio in particular. We endeavor to keep the news accurate, interesting, and educational. Copying and quoting is permitted, with a credit line, and we gladly exchange subscriptions with other clubs.

DEADLINE: All material must be in the hands of the Department Editor before the 15th, as the BLURB is mailed on the last Monday of each month.

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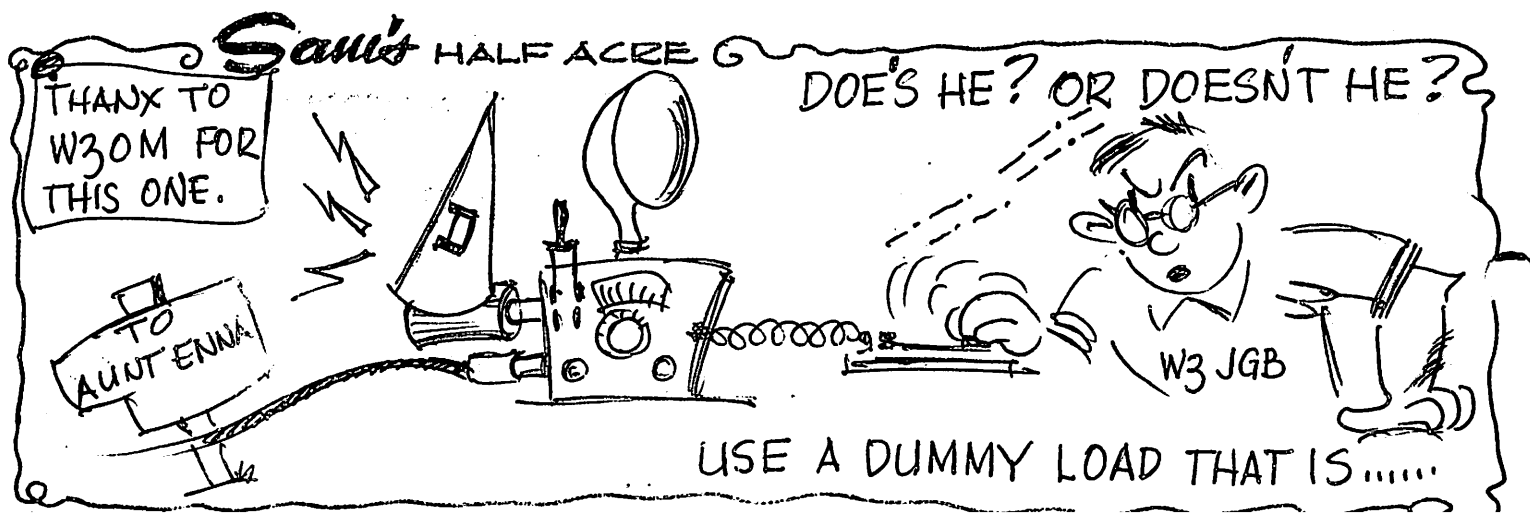
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CLUB NETS & FREQUENCIES

29.493mc - 10-on-10 Net Sundays
1000, monitored daily, 29.626mc
2nd Freq., 3993kc 88B 0730-0845,
50.70 and 52.525mc (FM) 147.78mc



THE PREZ SEZ

With the harbingers of spring well upon us, the time has arrived for most of us to look forward to activities outside the shack. The new antennas or mobile installations that have been taking shape in our smoke dreams have reached the status of reality, while others of us are sad to see the last remnants of snow disappear along with the challenge of the ski trails.

Phil-Mont has a couple of scheduled outings that offer a challenge to our newly acquired equipment and the desire of some of the members to put it to the test. Field Day is the big day in June and it can be fun, but you must participate in some facet of the day to really enjoy it. If you have any preference as to the type activity you would enjoy, make your comments, and include yourself to really enjoy it. Field Day can be fun.

Later in the summer the canoe races are scheduled, this year I would like to see all Phil-Mont equipment handling the communications. We sure had a ball with the camp-out and all last year, don't miss this one.

I am certain there is need for some more outdoor activities during the summer, so see what you can add.

DE W3YHV

CALENDAR OF EVENTS

April 3rd	Old Timers Nite, Monthly Meeting 8 p.m. Franklin Institute
	Remember all the old timers in Phil-Mont and invite them to come along. There will be a group gathering down-town for dinner, why not join in the fun?
April 12th	Stag Dinner and then to Mid-Month at QTH W3WNC 6:00 PM at the Alpine Inn.
April 24th	Blurb Folding 8 p.m. QTH W3QQH

The May meeting program will be a report and pictures of "The Terrifying Flight 843" June 28, 1965. It must sure contain some hair-raising experiences, told first-hand.

IT SEEMS TO ME -- By the Editor

Spring is just around the corner, as the remark goes. How true we will only know in the next few weeks. As the seasons go, so do the ham activities. This means that there will be more Phil-Monters on the hi-ways pursuing their course of activities combined with some hamming. As we condition the antennas for winter or put up new ones, likewise, now is the time to get the new rig in the car or clean up the present rig for the season ahead.

As the above changes are evident, so do the changes take place, in membership response to aid in the "Blurb" publication. Help can always be used in one area or another. Our paper like others, goes thru the changes that are inevitable, brought about by the effects of normal family life. If you compare the inside of the cover over a period of time it will show some of these changes. There are more, that are not apparent. One that I am most appreciative of, is the help that I have received from members, contributing materials. The amount of material has varied and will continue to vary, maybe like the seasons. However, there is one thing certain, the more contributions received the more our publication represents the club at large. Your contributions are most welcome, keep them coming and don't let the seasons effect your response.

THE COVER STORY -- By Your Editor Lloyd, W3CDY

The picture of our member, Charles Greenwood, "Charlie" W3GOW, on the cover is most timely. This meeting will be Old Timers Nite. Charlie fits into this category so well, as you will see.

The scene on the front cover finds Charlie-Gow, as he is often called, seated at the comfortable operating position of his Shack. He has an excellent layout that does not see the amount of operating time he would like. Charlie, like many, finds the demand on his time too great and therefore the hobby of Amateur Radio suffers to his chagrin. The duties as Vice President in charge of Engineering for the Pangborn Company are responsible for this demand of time and call for some travel that has recently taken him to the southern areas of the east coast. As you can tell by the call, he has been in Ham radio for many years. At the early age of 12 years he tasted the thrills of hamming and like one, of those days, constructed his gear, winding coils and using such available work areas as the breakfast table in the kitchen, saving and collecting like all hams.

Charlie held a Naval Reserve Commission and played his role in WWII. Lou the XYL and Charlie have two children, Bill and Jane. He was a member of Frankford Radio Club in the past. He runs a kilowatt at home on all bands and has been mobile for many years. At present

THE COVER STORY (Cont'd)

he is using SSB on 3993 and you may contact him if you don't get to work too early.

Charlie is a member of the group called the "Frogs." Some of the Phil-Mont members also with the group are W3's ADV, NIP, JPP, HQJ, HFD, BGR and possibly others that do not come to mind at present.

He joined Phil-Mont in 1958 and shortly thereafter started to lend his support to the Club. In 1960 he was elected Secretary and the following year in '61 he was elected Treasurer. The following year, 1962, he was the Vice President which groomed him, as if he needed it, to be elected to the presidency for 1963. The following year, '64 he was appointed a director. This brings us to the two years just passed, during which he served as Treasurer elect. Consequently, he has served Phil-Mont in an official capacity, from 1960 to 1966 inclusive. Furthermore, Charlie has served as an officer of the Club in all positions, an honor no one in Phil-Mont can claim. As I mentioned earlier, he has been busy, even then, he has served the Club well, with no complaint, doing the job well, to give us reason to feel, "if you want a job done and done well, give it to a busy man."

Lou, his charming and most friendly XYL, claims he has stopped beating her and I have reason to feel he never did so. You see she gave Charlie a Gavel during his term as President, without fear of having him use it on her. Gosh, he never even found need to use it to conduct the meetings. This, is Charlie, W3GOW, the quiet Phil-Monter who has served the Club for seven consecutive years in a modesty most becoming.

Out thanks to you Charlie, another typical PHIL-MONTER.

NAVY MARS by Sam Moskowitz, K3RTR/NØUKP

There will be a General Meeting of Pa., S. Jersey & Del., Navy Mars members at the Phila. Navy Yard on April 9 at 1:00 PM. Those members who have not indicated their intention to attend will not be admitted unless they have their Navy Mars Certificate with them.

It took some "DOING", but here are some Phil-Monter's who are Navy Mars Members: K3UWO/NØTIB; K3DJE/NØTID; K3WQQ/NØWRK; W3YHV/NØHMW; W3AES/NØEAK; WA2RDC/NØSBR; K3KUD/NØRUN; K3RSX/NØVQH; W3CDY/NØFNT; WA3AAD/NØZNP; K3FXP/NØVMV; W3ZN/NØSNB; and K3RTR/NØUKP. We know there are more, such as K3KFL. How about letting us have your calls, be they Army, Air Force or Navy. How about yours, Art, K3OEJ?

ARMY MARS By Frenchy Andrews W3IRS/A3IRS

The Pa. Army MARS meeting, known as "MARSFEST" for 1967 will be held at the Frankford Arsenal, Phila., on Sat. (evening) 27 May and Sun. 28 May, '67. While we are not soliciting visitors, I know that any seriously interested parties would be welcome. (Editors comment, suggest prior arrangements should be made if you wish to attend, to avoid possible embarrassment and dissatisfaction.)

There are 19 Army Mars stations in 19 locations; 11 Navy Mars Stations in 6 locations and 8 Air Force stations in 8 locations, in the Republic of Viet Nam handling traffic.

Army MARS has been handling direct phone-patch traffic between Viet Nam and Western and Central USA with success on specially assigned frequencies. There has not been a suitable frequency for such traffic to the Eastern USA sections to date. Army MARS (shared with AF MARS) channel 21 (27.994 mcs.) now used by Army MARS for local net/s (Pa. Army Mars net) will probably be withdrawn from local net use shortly and used as the Viet Nam to E. USA phone-patch channel shortly due to favorable propagation conditions.

(Correction: Frenchy has called my attention to the statement about the QST author of the article "Like in Mars." W1IBY is not a member of Army Mars but AIR FORCE MARS, in fact he is the director of training in his command area. Editor).

ATTENTION ALL MARS MEMBERS AND ALL RADIO AMATEURS

ARMED FORCES DAY IS ALL SET FOR MAY 20, 1967

There will be cross-band contacts to be confirmed by special QSL's. The CW and RTTY receiving contest will be conducted and any one who feels able to copy and compete is invited to participate. The CW will be sent at 25 wpm and the RTTY will be sent at 60 wpm. Certificates will be issued to those submitting perfect copies.

HELP is needed to locate an Instruction Book for a Model TW-11 Tube Checker by Superior Instrument Co. (no longer in business). If you have one and can lend it to be copied and returned, please contact: Sam Moskowitz, K3RTR/NØUKP, 401 Sansom St., Upper Darby, Pa. 19082, Tel. 215-FL-2-0978.

THE FREE-BEE AUCTION By Asst. Editor Sam Moskowitz, K3RTR

Here are some highlights of the Free-Bee Auction. Jon W3AES was the highest bidder for the colorful box. It contained, of all things, some hair spray and smelly perfume. K3RSX, Frankie, started the bidding on about a dozen items at 25¢; paid off sometimes too. Paul, W3YG, another W3TKQ op also made the meeting and bid on the goodies. Besides taking home some boat anchors he also took a prize. Marge, K3FXP, who is also making a bid for membership in Phil-Mont, ballyhooed the Mobile Sixers Banquet to be held at Walber's on the Delaware, on April 15th. We have been invited to join them on that Saturday nite. The tax is \$6.50 per. Hy, W3WNC the auctioneer, kept things moving while he seemed to cast some sort of a spell over some of the bidders, though aided and abetted by Jim W3QQH. How he manages to dispose of all those goodies is a marvel to behold. Would you believe that a small empty (?) wooden box brought \$5.00 and a \$2.00 mike went for \$3.00? Of course there were many bargains, such as \$12.00 worth of power transistors and diodes for \$2.00 bought by Willies Three Jumping Green Beans and many more. Several of our visitors tried to out-bid each other for some of those goodies and all had a LOT of fun. Thanks to all of those who participated and helped the cause of ham radio and Phil-Mont.

NEW MEMBERS AND OLD TIMERS ALIKE -- we have for you --- Decals with Gumbaуди and the Club name, see W3QQH; QSL Cards, for dope, see the pres W3YHV and if there are enough members interested, another order will be placed for Coffee Mugs. All of these items use the official Gumbaуди Design so exclusively Phil-Mont. While on the subject of Club offerings, remember the QST renewal service available to you by returning your renewal card, filled out, with fee to the treasurer and he will take care of the renewal for you, since the club benefits from this effort.

29.600 mc BECOMES A NATIONAL QSO FREQUENCY

It looks as though 10 meters is in for more activity. Several months ago, in Denver Colorado, a project was started to encourage the conversion of the eleven meter transceivers to the 10 meter band to promote a common QSO frequency for U.S. and Canada. The idea took hold and a frequency of 29.600 mc was chosen. This coincided with the article in February QST on the conversion of these 11 meter or CB Rigs. The idea was presented to the ARRL Executive Committee, resulting in their recommendation that the use of this common QSO frequency be supported and encouraged for low power AM equipment. Now if you have a rig of this sort you could put in 29.03, 29.520, 29.600, 29.626 and 29.640, providing you have five channels. So you see fellows, a Phil-Mont idea grows and grows. Let's support it!!

VISITORS

Several of the visitors were with us again. Marge, K3FXP, Doug, WA3DSP and John Moran. Nice to have you back. Geo Bonatsos, who is presently taking the ham radio course at FI joined us. Tony DiBendetto, K3GYK, Chatam Village and Jack Sutton, WA3EYY not only paid us a visit, but joined heartily in the fun of the auction. Fred Coats, WA3EYY of Wallingford was with us for the first time and enjoyed both the auction and the fellowship. Warren Dunning, though he has no call, has a deep interest in electronics and a growing desire in ham radio, saw a Phil-Mont auction in full swing. Warren works for the FI Laboratories. Don't wait for the next auction, but do come and join us again, soon.

Be sure to read this months OUTSTANDING Technigram. Another Phil-Mont First.

REPORT FROM MONTREAL By Jim Bock, K3PHC/VE2

Greetings from typical Montreal (Temp running 0-25 deg. F most days). Arrived here too early for EXPO 67 but I'll ski in the meantime on weekends. During the week I work at Canadaair Ltd. on a sub-contract basis. I am on 10-80 SSB-AM, listen for me on 3993 in the evenings around 8:00 EST, especially on Monday and Thursdays. I would enjoy a phone-patch to the XYL and harmonics. If I am still here when EXPO 67 opens, contact me at work (744-1511 Ext. 5413) and I'll invite you over to my place for a drink. (Note: Each Adult visitor to Canada can buy one Imperial Quart of Whiskey-- (Canadian Club \$4.50, etc.)-- and one carton of American Cigarettes (\$2) duty free for your use in Canada. Get your operating permit ahead of time!! I had to leave my rig (TR4) at Customs and then retrieve it after I obtained by permit at the Regional Director Office here in Montreal.

Our Pres Bill, W3YHV, had the club's new SB-100 at the meeting for display. Baldy Bill does the nicest work in putting such equipment together. Bet it will work equally as well when he gets thru with it.

Russell McFall is the youngest President that Western Union has ever had. In case you didn't know it, Russ is W3JAB (From LERC ARC BULLETIN, March issue).

RCA's new micro-miniaturized TV Camera is tubeless, and smaller than a man's hand. It's the first of its type without any pick-up tube. Battery-powered, it takes pictures via a network of 132,000 thin film devices which are deposited on 4 glass slides of only 1 sq. in. Some of these thin-film devices respond to the presence of light, while others perform circuit functions. A miniature transmitter, completely transistorized, makes it possible to send pictures directly from the camera to a TV receiver, either by wire or direct transmission from a loop antenna. (From "Breakthrough" Jan./Feb. '67 issue.)

We know that Walt, K3OJA had been hospitalized but have not been able to learn how he is doing. Will someone please advise. HOPE no news is good news.

The READING RADIO CLUB announced the date for their Annual Banquet for May 20th, 1967. And listen to this fellows, at the Temple Fire Co. Sounds like one of those old fashioned, never to be forgotten, enjoyable affairs. Better mark the date.

We have a new associate member whose call has a familiar ring. W3IGW, will make his home in one-land and has requested the transfer to associate from regular membership. We are sorry to loose you Howard, and wish you, Kitty and the family, the best in your new home. We will listen for you on 3993, Howard. How about that?

NEW MEMBER APPLICATION

Margaret Kennedy, K3FXP, "Marge" (Now Asso. member) 212 Blanchard Rd. Drexel Hill, Pa. 19026 has presented her application. The OM is Jack K3OWY. She is a housewife and finds time for hamming.

Mobile Sixers Banquet will be held on Sat. April 15th, at Walber's on the Delaware, @ \$6.50 per person. They have extended an invitation to Phil-Monters to join in their 9th Annual Gala Event.

SWAP AND SHOP

For Sale: Central Electronics 20A SSB exciter 160-10 mtrs. \$100.00 or offer
Bandhopper VFO for above 160-10 mtrs. \$50.00
Heath Sixer and Twoer Unconverted and perfect. \$45.00 each
Heath GW-22 CB or 10 mtr. transceiver perfect condition. \$50.00
Heath Power Converter MP-10 12 to 110V perfect. \$29.00
Atlas Desk Mike stand deluxe perfect make offer
Motorola FM Walkie Talkie on 2 mtrs. in good condition. \$40.00
National VX 501 VFO Console for NCX-5 \$185.00

Wanted: CQ, Popular Electronics, Electronics Illustrated or any other back issues of Electronics magazines that you no longer want.

Above equipment contact K3DSM, Gene Mitchell after 6PM - MO-4-0593 or use 29493 kc.

For Sale: Drake 2B with Cal, Spkr, and Heath QF 1 3.5 to 30 mc. \$210.00
Heathkit HX-20 with HP-20 pwr sply 100W SSB and CW \$170.00
Johnson Viking II with Model 122 VFO 125w AM & CW. \$95.00
Transformer 2000 v ct @ 400 ma \$10.00
Phone patch \$3.00
Model M 131 crystal microphone. \$4.00
Telephone hand set \$3.00
Power Supply 190 v @ 200 ma, 6.3 v @ 2 a. \$5.00

Above equipment contact Walter O. Sutton Jr. W3ZAC - EL-7-1928

For Sale: BC 348, 1.5 to 18 mc. ideal for beginner \$45.00
RCA CTR 1 A, hi band FM Base Station on 2 mtrs. \$50.00
B & W Matchmaster SWR bridge and Dummy Load \$20.00

Above items contact Jim Spencer, W3QQH 884-8469

For Sale: Heath FM Auto Radio \$35.00
Heath HO-10 Monitor Scope \$50.00

Contact W3YHV

THE PHIL-MONT TECHNIGRIM - SPACE MODULATION THEORY - by W3VVS

Space modulation represents an entirely new approach to radio communications and offers the primary advantage of occupying less spectrum than other forms of voice communications; approaching that of cw and many times better than SSB. The space modulation system is dependent upon an antenna system of unique design.

Briefly, the space modulation theory is summarized as follows:

- (1) A cw carrier is applied to a vertical antenna, called the driven element.
- (2) A second cw carrier of the same phase relationship is applied to a second vertical antenna, called the reflector element.
- (3) The two antenna elements (driven and reflector) are physically spaced one-quarter wavelength apart and the entire assembly is capable of being rotated. The resulting beam, when no modulation is applied, is directed at the receiving station.
- (4) The reflector element is fed from a goniomulator with rf power of the same phase relationship as the original cw carrier source. The goniomulator output-power level is determined by the modulation intelligence; therefore, the radiated signal in the desired direction varies in proportion to the modulation.

One advantage offered by the system is that it enables not only the radiation of signal in the desired direction, but also enables the placement of intelligence in the spectrum without the requirement for spectrum-consuming sidebands.

The goniomulator employed in this remarkable system may be of either of two basic types: the first basic type consists of an electromechanical-capacitive goniomulator to vary reflector-element power in proportion to the modulating intelligence; the second basic type consists of an NS* linear amplifier, whose gain and thus the power in the reflector element, is controlled by the modulated bias supply. In this latter system, phase-balance is very important in order to prevent a 180-degree ambiguity in radiated signal and possible speech inversion.

The speech inversion technique is sometimes employed for security of voice transmissions and will not be discussed here for obvious reasons, except to note that if the space modulation transmission cannot be understood, the ham operator probably has hit upon this secret means of communication. Should this occur, merely reverse the grid or plate leads of the tubes (but not both), or change the output-coupling link connections of the NS* linear amplifier.

TECHNIGRIM (Cont'd)

The receiver required for this system must be operated without benefit of avc, as it would be for cw reception. The detector-circuit time constants must be very short with the ac impedance to voice frequencies as high as possible to offer minimum shunting effect. Maximum recovered audio intelligence will result when the original modulating frequencies are limited only to the frequencies which contribute to intelligibility of speech; all audio frequencies below 250 cycles-per-second (this hurts) and above 3,500 cycles-per-second are eliminated.

For the ham interested in experimenting with this new and novel system of communication, it is only fair to warn the reader that there are a few "bugs" remaining which will become immediately apparent. However, these few "bugs" will represent a challenge to the real ham who builds his own bugs (instead of buying them in kit form) and should, no doubt, provide many frustrating hours of wasted time and effort.

*NS - not so.

MORE SWAP AND SHOP

For Sale: Gonset II 2 meter transceiver
Gonset 2,6, 1 $\frac{1}{4}$ VFO
8 Element 2 meter Hy Gain Beam
Channel 1 rig 2 channel receive and transmit
on channel 1 and 29.360 110v AC
VHF 152 A converter for 10,6,2.
DX-35 as is.

Above items contact Bel Toren W3IWO - TR-7-1536